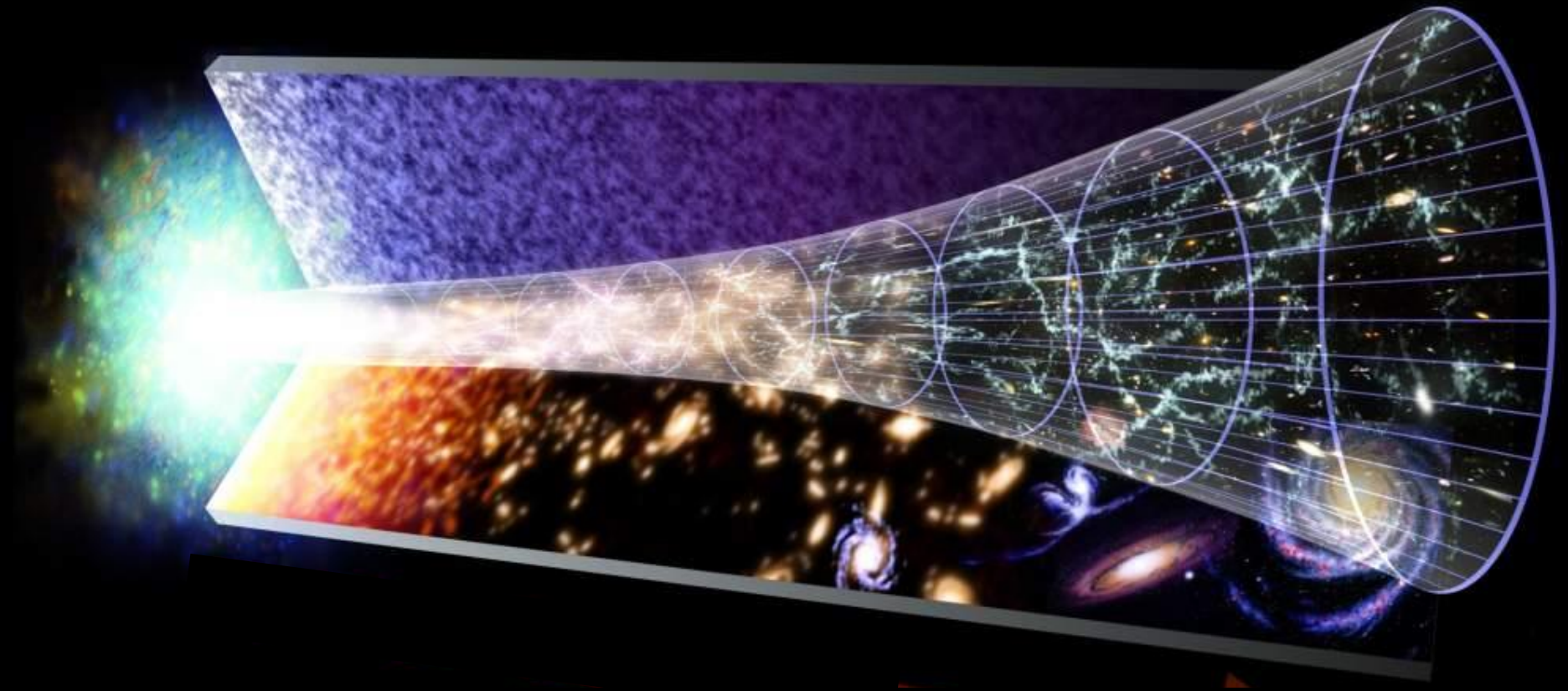# Electronic Warfare – The Forgotten Discipline

Commander Malte von Spreckelsen

AOC Europe , Stockholm 14th June 2019

"… a military action that exploits electromagnetic energy, both actively and passively, to provide situational awareness and create offensive and defensive effects.
It is warfare within the Electromagnetic Spectrum…"

(NATO MC 64/11)

I do not think that the radio waves I have discovered will have any practical application.

— *Heinrich Hertz* —

Port Arthur during the Russo Japanese War

World War 2 - The Battle of the Beams

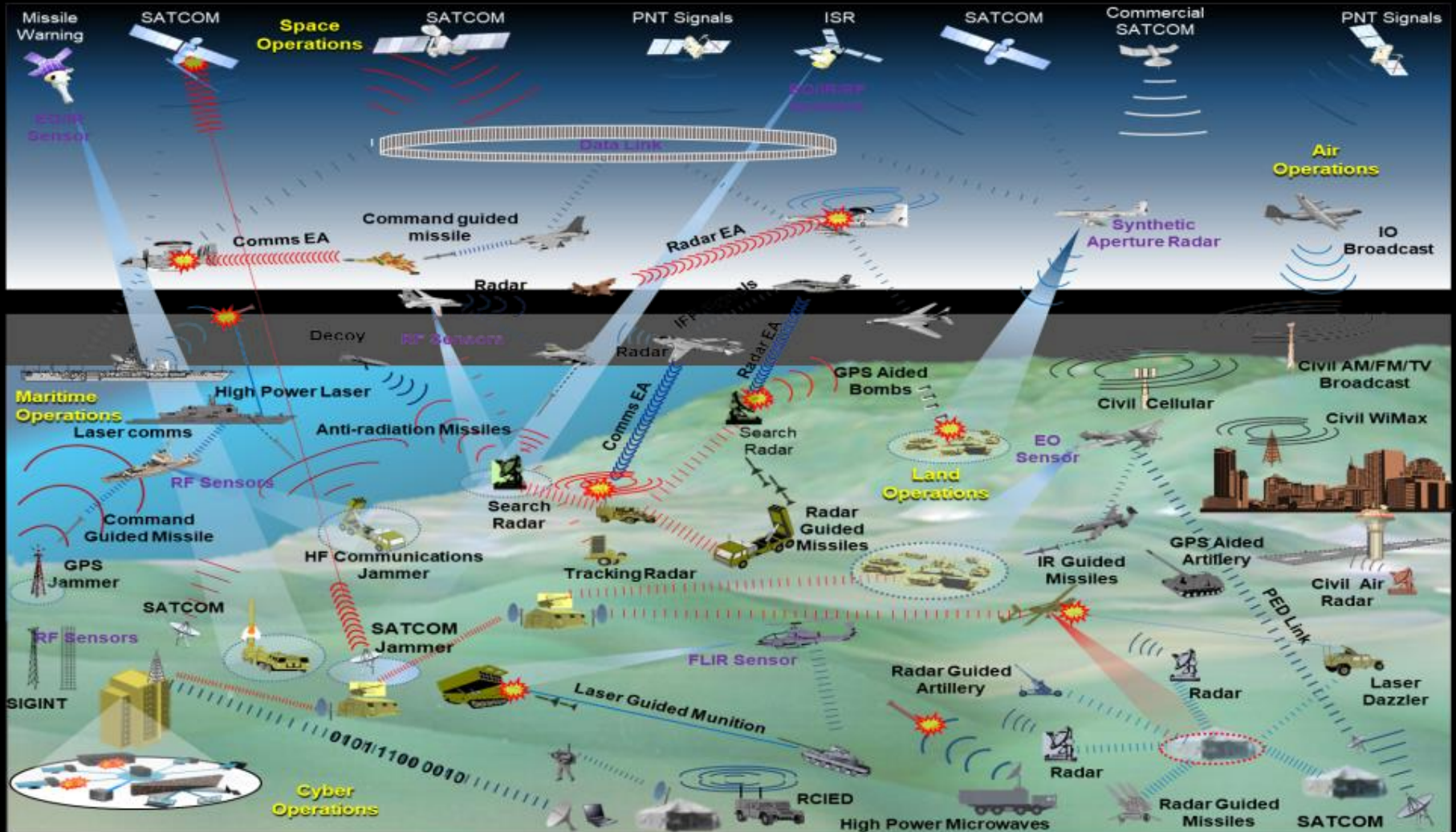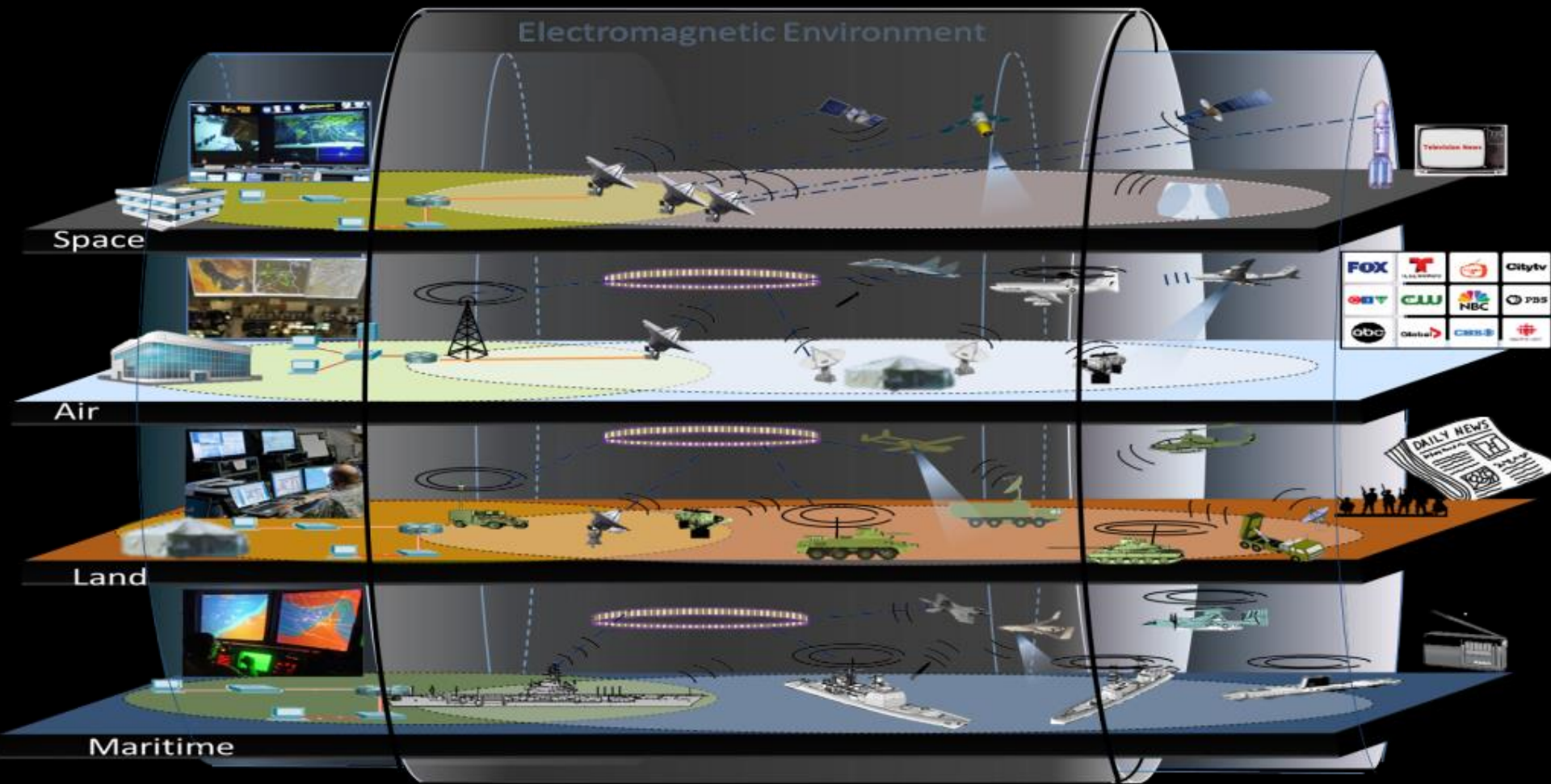From the Vietnam War

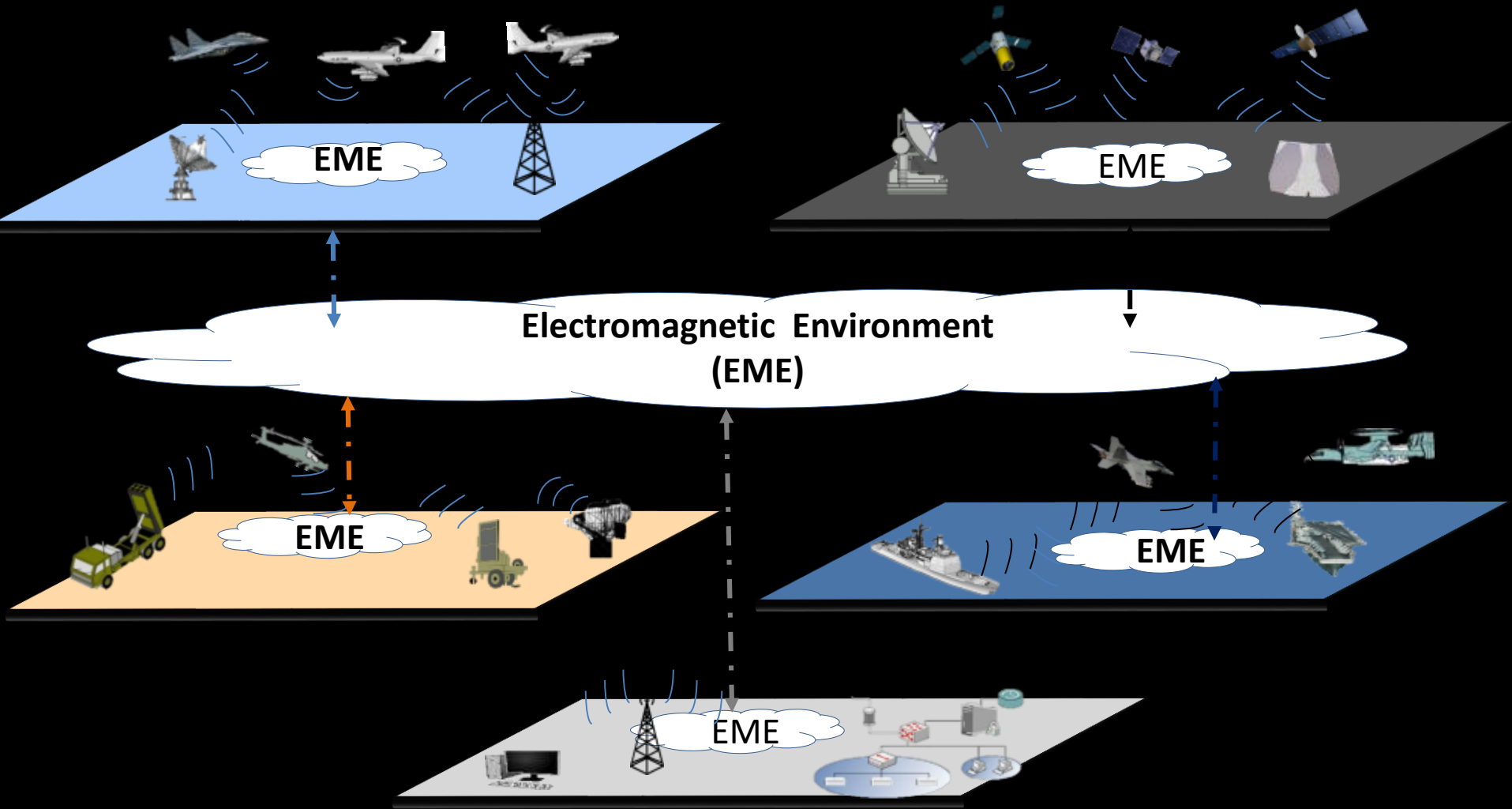to the Gulf War

Afghanistan

and Iraq

Today ...

The EME is part of the battlespace and commanders must establish an organizational structure to shape , exploit and operate in the EME

… what I can say is that we see that cyber, electronic warfare, electronic means are used more and more frequent in different operations, and therefore we take all these issues very seriously, partly to be able to deal with electronic warfare and to develop our capabilities to handle that …

NATO Secretary General Jens Stoltenberg
Nov 2018

The EME overlaps and supports operations in each operating domain and environment.

The EME enables and enhances operations in each domain — simultaneously providing the EM pathways which link and integrate military forces.

Electronic
Warfare

ES, ED, EA

Electronic attack, defense and surveillance activities support operations in all domains and across all functions.

Conclusion

• **The EME is an operational environment to be shaped to support NATO EMO while denying its use to the adversary.**

• **A battle space to be used to conduct EW to attack an adversary while protecting NATO forces.**

• **A conduit for using EW capabilities to exploit adversary EM signals for military purposes such as situational awareness, indications and warning, and targeting.**

Like a sleeping beauty electronic warfare has been a resting delight, hidden away and overlooked for an age.

Now it is grown to a dragon ready to be awake again to recreate spectrum superiority

Questions ??